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10 spindle portion after a mixing operation to permit replacement of  
the stirrer, and

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15 a drive system for rotating the multi-piece spindles to mix  
the contents of the vessels, said drive system comprising a drive  
mechanism located external to the vessels, and magnetic feed  
through devices for magnetically coupling the drive mechanism to  
the upper spindle portions of the multi-piece spindles, each  
upper spindle portion comprising a leg extending down from a  
respective magnetic feed through device.

5 180. A parallel reactor as set forth in claim 179  
wherein said magnetic feed through device comprises a magnetic  
driver rotatable by said drive mechanism, and a magnetic follower  
adapted to be magnetically rotated upon rotation of the magnetic  
driver, said leg comprising an integral extension of said  
magnetic follower.

5 181. A parallel reactor as set forth in claim 179  
wherein said drive mechanism comprises a gear train for rotating  
each magnetic feed through device, and a motor for rotating gears  
of the gear train to effect rotation of the multi-piece spindles  
at speeds up to 3000 rpm.

182. A parallel reactor as set forth in claim 181  
wherein each vessel has as volume of less than about 500 ml.

183. A parallel reactor for simultaneously processing  
a plurality of reaction mixtures, said reactor comprising

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vessels for containing the reaction mixtures, and

5 plastic stirrers for stirring the reaction mixtures in the  
vessels,

a drive system for moving the stirrers to mix the contents  
of the vessels, and

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10 a coupling for releasably connecting each stirrer to the  
drive system in a position wherein the stirrer extends down into  
a respective vessel,

said plastic stirrer being removable from said coupling to  
permit replacement of the stirrer.

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184. A parallel reactor as set forth in claim 183  
wherein said stirrer is of a chemically resistant plastic  
material and comprises a shaft and mixing blade on the shaft.

185. A parallel reactor as set forth in claim 184  
wherein said shaft of the stirrer has a quick-connect/disconnect  
element thereon adapted for releasable engagement with said  
coupling.

186. A parallel reactor as set forth in claim 185  
wherein said quick-connect/disconnect element comprises a  
circumferential groove around said shaft for receiving one or  
more detents in the coupling.

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187. A parallel reactor as set forth in claim 183 wherein said drive system comprises a drive mechanism located external to the vessels, and magnetic feed through devices driven by said drive mechanism for rotating the stirrers.

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188. A parallel reactor as set forth in claim 187 wherein said coupling is attached to a leg extending down from a respective magnetic feed through device.

189. A parallel reactor as set forth in claim 188 wherein said magnetic feed through device comprises a magnetic driver rotatable by said drive mechanism, and a magnetic follower adapted to be magnetically rotated upon rotation of the magnetic  
5 driver, said leg comprising an integral extension of said magnetic follower.

190. A parallel reactor as set forth in claim 187 wherein said drive mechanism comprises a gear train for rotating each magnetic feed through device, and a motor for rotating gears of the gear train to effect rotation of the magnetic feed through  
5 devices and stirrers.

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191. A parallel reactor as set forth in claim 183 wherein said drive system comprises a gear train drivingly connected to each of said stirrers, and a motor for rotating gears of the gear train to effect movement of the stirrers.

192. A parallel reactor as set forth in claim 183 wherein each vessel has as volume of less than about 500 ml.

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193. Plastic stirrers for use in stirring reaction mixtures in a parallel reactor, said reactor comprising vessels for containing said reaction mixtures, a drive system for moving the stirrers to mix the contents of the vessels, and couplings  
5 for releasably connecting the plastic stirrers to the drive system in positions wherein the stirrers extend down into the vessels, each plastic stirrer comprising a shaft and a mixing blade on the shaft, said shaft having a quick-connect/disconnect element thereon adapted for engagement with said coupling for  
10 releasably connecting the plastic stirrer to the drive system whereby upon completion of a mixing operation the plastic stirrer is adapted to be disconnected from said coupling and replaced by a new plastic stirrer.

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194. Plastic stirrers as set forth in claim 193 wherein said quick-connect/disconnect element comprises a circumferential groove in said shaft adapted for receiving one or more detents in the coupling.

195. Plastic stirrers as set forth in claim 193 wherein each stirrer is sized for reception in a vessel having a volume of less than 500 ml.

196. Plastic stirrers as set forth in claim 193 wherein each stirrer is sized for reception in a vessel having a volume of less than 20 ml.